

REMARKS

After entry of this amendment, claims 9-24 are pending in the application. Claims 9, 12, 14, and 16 have been amended to more particularly point out and distinctly claim the subject matter that applicant regards as the invention. New claims 17-24 have been added. Reconsideration of the application as amended is requested.

In the Office Action dated December 17, 2002, the Examiner states that the oath or Declaration is defective because the signatures for a third and subsequent joint inventors are not supplied. The applicant respectfully submits that the oath as filed is in compliance with 37 C.F.R. 1.67(a). The present invention only has two inventors. The two inventors cited in the present invention are the same two inventors cited in the International Application PCT/EP99/00637. A copy of the Declaration as filed is enclosed. A copy of the cover sheet of the International Application PCT/EP99/00637 is also enclosed showing that the same two inventors were named in the corresponding International Application.

The Disclosure stands objected to because of informalities which were noted by the Examiner. The specification has been amended in order to make the corrections noted.

Claims 9-16 stand rejected under 35 U.S.C. § 112, 2d ¶ as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The wording of claim 9 has been amended. The limitations "the outer ring" and "the inner ring" have been amended to "an outer ring" and "an inner ring" in claim 12. Referring to claim 14 the Examiner states that he is unsure of the proper meaning for the limitation "wobble riveting". A printout of a website (<http://www.mauersberger-thum.de/englisch/machinery.html>) is enclosed referring to wobble riveting which provides a definition/explanation of the term. Claim 16 has been amended to depend from claim 9. Reconsideration of the Examiner's rejection of claims 9-16 under 35 U.S.C. § 112, 2d ¶ is requested.

Claim 9 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Leroy et al.(EP0182123). The Examiner asserts that Leroy discloses a four-hinged wiper arrangement for cleaning windows of vehicles and that the wiper comprises a connecting rod 3 pivotally connected to a driver arm 4 at a first roller bearing point 13 and to a control arm 1 at a second bearing point 11. It should be noted that U.S. Patent Number 4,683,605 ('605) issued to Leroy is the U.S. equivalent of EP0182123. A careful reading of the disclosure of Leroy '605 discloses that the coupling rod 3 in Leroy is not connected to the controlling arm 1 at the second bearing point 11. The connecting rod 3 in Leroy terminates at the pivot pin 12. A supporting rod 2 is connected to the pivot pin 12 and is also connected to the bearing 11. Claim 9 as amended recites that the first bearing point and the second bearing point are on the connecting rod. Bearing point 11 of Leroy '605 is not located on the connecting rod 3. Reconsideration of the Examiner's rejection of claim 9 under 35 U.S.C. §102(b) is requested.

connecting rod 3
11
12

Claims 10, and 12-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leroy in view of Egner-Walter (GB2145168). In the rejection the Examiner admits that Leroy fails to mention a deep groove ball bearing. However, the Examiner alleges that Egner-Walter teaches a connecting gear for a windshield wiper that comprises a deep groove ball bearing 15. The Examiner further states that the outer ring of the ball bearing in Egner-Walter is axially secured and held so that it does not rotate in a recess of the connecting rod. Further the Examiner states that a pin 13 is inserted into the inner ring 14 of the ball bearing and is axially secured and non-rotatably held. The Examiner states that it is unknown whether the prior art has the pin riveted. Regarding claim 14 the Examiner states that the pin in Egner-Walter is secured by wobble riveting. The Examiner further alleges that Leroy and Egner-Walter are analogous art because they are from the same field of endeavor of windshield wiper connection hinges. The Examiner alleges that, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use Egner-Walter's groove ball bearings in place of all of Leroy's bushings.

It is respectfully submitted that the Examiner's reliance on the non-analogous art of Enger-Walter is inappropriate. In particular, one skilled in the art of four-hinge wiper arms would not search or have knowledge of a connecting gear for a drive motor. The references are classified in entirely different areas: the International Classification of the Egner-Walter disclosure is F16C 25/06, whereas the International Classification of the Leroy disclosures is B60S. The determination of when arts are analogous depends on the necessary essential features or utility of the subject matter covered by the claims and not what it is called. (See Manual of Patent Examining Procedure §904.01(c)). When the proposed combination of references involves material modifications of the basic form of one article in view of another, the nature of the articles involved is a definite factor in determining whether the proposed change involves invention. See *In re Glavas*, 109 USPQ 50 (CCPA 1956) and MPEP §1506. The function of the present invention, mainly a four hinge wiper arm, is not the same as a connector gear for a drive motor as disclosed in the Enger-Walter patent. For resolution of obviousness under 35 U.S.C. §103, the law presumes full knowledge by the hypothetical worker having ordinary skill in the art of all the prior art in the inventors' field of endeavor. With respect to the present application, the appropriate field of endeavor is the four hinge wiper arm art. With regard to prior art outside the inventors' field of endeavor, knowledge is presumed only as to those arts reasonably pertinent to the particular problem with which the inventor was involved. See *In re Clay*, 966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992), *In re Wood*, 599 F.2d 1032, 202 USPQ 171 (CCPA 1979), *In re Antle*, 444 F.2d 1168, 170 USPQ 285 (CCPA 1971). In the present application, the inventors were concerned with four hinge wiper arm connections. Following *Clay* and *Wood*, the determination that a reference is from a non-analogous art is two fold. First, it must be decided if the reference is from within the inventors' field of endeavor. If it is not, then it must be determined whether the reference is reasonably pertinent to the particular problem involved. The Enger-Walter reference discloses a connector gear for the crank arm of a drive motor. The Egner-Walter reference does not relate to the four hinge wiper arm connection art,

and therefore is outside of the inventors' field of endeavor. The Egner-Walter reference is not reasonably pertinent to the particular problem involved in the present application, since the present application is concerned with four hinge wiper arm connections, while the Egner-Walter reference is concerned with connector gears for the crank arm of a drive motor. It is respectfully submitted that the Egner-Walter reference is non-analogous art, and therefore cannot be properly combined with the Leroy reference as suggested by the Examiner in rejecting claims 9-10 and 12-16. Even if the Egner-Walter reference is considered to be analogous art, the combination of references, taken singularly, or in any permissible combination does not anticipate, teach or suggest the present invention as set forth in the claims. The grooved ball bearing 15 in Egner-Walter is used between the crank and the connecting rod at the electric motor. Egner-Walter relates to the connecting gear adjacent to the electric motor. In contrast, the present invention refers to a four-hinged wiper arm adjacent to the wiper blade. Therefore, Egner-Walter refers to an entirely different area of the windshield wiper assembly than the present invention. There is no suggestion to combine the wiper system disclosed in Leroy with the grooved ball bearing in Egner-Walter. Even if one took the grooved ball bearing as disclosed in Egner-Walter and replaced those bearings with all of Leroy's bushings, one would still not have the present invention. The control arm 1 in Leroy is not connected to the connecting rod 3 of Leroy at a bearing point 11. Bearing point 11 in Leroy is connected to a separate supporting rod 2. Reconsideration of the Examiner's rejection of claims 9-10 and 12-16 under 35 U.S.C. §103(a) is requested.

Claim 9-10 and 12-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schael et al. (DE19501211) in view of Egner-Walter. It should be noted that U.S. Pat. No. 5,860,186, a copy of which is enclosed, is the U.S. equivalent of DE19501211. The Examiner states that Schael discloses a wiper arrangement for cleaning windshields of vehicles and that the wiper comprises a connecting rod 1 that is pivotally connecting to a drive arm at a first bearing point 4 and to a control arm 3 at a second bearing point 5. The Examiner further alleges that there is a hinged part 20 that connects the connecting rod to

the wiper arm, and that the wiper blade is attached to the wiper arm thus the spring force from the hinge causes the wiper blade to be pressed against the windshield. The Examiner admits that Schael does not disclose a deep groove ball bearing but teaches pivot pins or bushings on the hinges. The Examiner states that Egner-Walter teaches a connecting gear for a windshield wiper that comprises a deep groove ball bearing. The Examiner further states that it would have been obvious to person of ordinary skill in the art to use Egner-Walter's groove ball bearings in place of all of Schael's bushings. Claims 9-10 and 12-16 are not anticipated, taught or rendered obvious by the combination of Schael et al in view of Egner-Walter. As stated supra, the Egner-Walter disclosure is not analogous art for the aforementioned reasons. The references are classified in entirely different areas: the International Classification of the Egner-Walter disclosure is F16C 25/06, whereas the International Classification of the Schael disclosures is B60S. The combination of elements from non-analogous sources in a manner that reconstructs the Applicant's invention only with the benefit of hindsight is insufficient to present a prima facie case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination.

At best, the prior art references show components in bits and pieces of the inventive arrangement as claimed in the independent claims. The relevant art recognizes many components and concepts within its domain. Upon close investigation and scrutiny of the diverse practices in this art and its peripheral technical fields of endeavor, a fact-finder is inevitably led to the conclusion that artisans can and could produce a myriad of devices and functions of apparently endless diversity from components and concepts already individually recognized as belonging to the prior art. Such speculation must not cloud the standards for the evaluation of patentability over the prior art under 35 U.S.C. §§ 102 and 103. Properly focused, the issues center on what would have been anticipated, or obvious to one of ordinary skill in the art at the time of the invention. Obviousness is tested by what the combined teaching of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413,

425, 208 USPQ 871, 881 (CCPA 1981). But it cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. See *ACS Hosp. Sys. Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). And teachings of references can be combined only if there is some suggestion or incentive to do so. See *In re Fine*, 837 F.2d 1071, 5 USPQ 2d 1596, 1599 (Fed. Cir. 1988). Approaches to obviousness determinations which focus merely on identifying and tabulating missing elements in hindsight retrospect imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, and, fall victim to the insidious effect of hindsight syndrome wherein that which only the inventor taught is used against its teacher. *W. L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 312-3 (Fed. Cir. 1983). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 5 USPQ 2d at 1600. Reconsideration of the Examiner's rejection of claims 9-10 and 12-16 under 35 U.S.C. §103(a) is requested.

New claims 17-24 have been added to recite the original claims 9-16 in Jepson format. Claims 17-24 recite an improvement for a four-hinge wiper arm for a windshield wiper having a connecting rod pivotally connected to a driving arm and a first bearing point and to a control arm at a second bearing point, and a hinge part coupled to the connecting rod, and a wiper rod connected to the hinge part for pressing against the windshield to be wiped by a spring element mounted on the four hinge wiper arm. The Examiner's consideration of new claims 17-24 is requested.

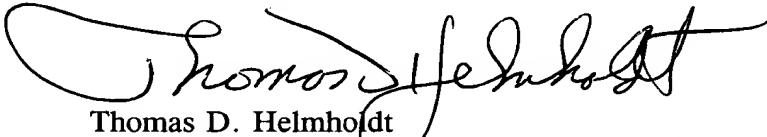
It is respectfully submitted that this Amendment traverses and overcomes all of the Examiner's objections and rejections to the application as originally filed. It is further submitted that this Amendment has antecedent basis in the application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the application as amended is requested. It is

respectfully submitted that this Amendment places the application in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

Respectfully submitted,

YOUNG, BASILE, HANLON, MacFARLANE,
WOOD & HELMHOLDT, P.C.

A handwritten signature in black ink, appearing to read "Thomas D. Helmholdt", written over a horizontal line.

Thomas D. Helmholdt
Attorney for Applicant(s)
Registration No. 33181
(248) 649-3333

3001 West Big Beaver Rd., Suite 624
Troy, Michigan 48084-3107

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

9. (Amended) A four-hinged wiper arm for a windshield wiper system, [wherein] comprising:

a connecting rod [is] pivotally connected to a driving arm at a first bearing point on the connecting rod and to a control arm at a second bearing point on the connecting rod, a hinged part [is] coupled to the connecting rod at an axis, [and] a wiper blade [and placed] placable on one of the hinged part and [on] a wiper rod connected to the hinged part can be pressed against the windshield to be wiped by a spring element that is mounted on the four-hinged wiper arm, [characterized in that] wherein one of the connecting rod [and], the driving arm, and the control arm is provided with a rolling-contact bearing in at least one of the first and second bearing points of the four-hinged wiper arm.

12. (Amended) The four-hinged wiper arm according to Claim 9 characterized in that [the] an outer ring of the at least one rolling-contact bearing is axially secured and held, so that it does not rotate in one recess of the connecting rod whereas a bolt, attached to one of the driving arm and the control arm, is fitted into [the] an inner ring of the rolling-contact bearing and is axially secured and non-rotatably held.

14. (Amended) The four-hinged wiper arm according to Claim 13, characterized in that the riveted bolt is secured by wobble riveting in a passage one of the driving arm and control arm, and by wobble riveting at [an] the inner ring of the rolling-contact bearing.

16. (Amended) The four-hinged wiper arm according to Claim 9, further comprising a rolling-contact bearing with a deep groove ball bearing both at the first bearing point between the connecting rod and the driving arm and at the second bearing point between the connecting rod and the control arm.

New claims 17-24 have been added.